

family members been concerned about your drinking?" "Has drinking ever caused problems in your life?" A hidden or defensive alcoholic often begins to disclose a problem at this stage.

In the early diagnosis of alcoholism, the findings on physical examination may not be remarkable, but abnormalities are often present on laboratory testing. The following blood alcohol levels are diagnostic: (1) more than 100 mg per dl in a patient coming for a general examination; (2) more than 150 mg per dl without signs of intoxication and (3) more than 300 mg per dl at any time. A common abnormality is an elevated serum gamma-glutamyl transpeptidase (GGT) level two to four times normal. Less common is an elevated serum glutamic oxaloacetic transaminase (SGOT) value which will return to normal before the GGT level. Macrocytosis without anemia can develop during a long period of heavy alcohol drinking and requires months to resolve. Elevations can also be observed of triglycerides, serum bilirubin, alkaline phosphatase or uric acid. If a physician suspects that a patient is alcoholic, all these tests should probably be done. If results of *one or more* are abnormal, the patient can be confronted with the fact and told that the abnormality may be related to alcohol intake. Laboratory test abnormalities cannot be relied upon for diagnosis because there is a high rate of false negative determinations in alcoholic persons. The physician should have a reliable set of criteria for making the diagnosis.

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Jogging and Abnormal Laboratory Tests

VIGOROUS EXERCISE, such as jogging, can produce significant abnormalities in laboratory tests. Slight elevations in blood urea nitrogen, serum glutamic oxaloacetic transaminase, creatinine phosphokinase and lactic dehydrogenase have been found in routine physical examinations of persons who jog middle and longer distances (10 km or more). Gross hematuria may be observed in joggers and, more often, in marathon runners. Microscopic hematuria may be evident for up to one or two

days. Cylindruria (3 to 5 casts per low power field) and proteinuria (2+ to 3+) has been observed in subjects within one hour after running a mile and a significant amount may still be present three to six hours after running. Usually these values return to normal after 24 hours.

Given the popularity of physical fitness activities and jogging today, a physician may need to be familiar with sports medicine and laboratory values for those who exercise vigorously. This knowledge may be essential in making sound clinical determinations about further clinical or laboratory studies.

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Screening for Neonatal Hypothyroidism

CONGENITAL HYPOTHYROIDISM lacks easily recognizable clinical features and is rarely suspected in the first few months of life. As a consequence, irreversible central nervous system damage may occur before the condition is recognized. Because treatment with thyroid hormone may prevent this damage if given before three months of age, early recognition is essential. Large scale population studies in Canada and England have shown an incidence of congenital hypothyroidism of approximately 1 per 5,000 live births.

Development of a reproducible and accurate technique for the determination of thyroxine (T_4) from a spot of dried blood on filter paper, similar to the technique used for phenylketonuria (PKU) screening, has made the test readily available for use in all newborn infants. The specimen is stable and the filter paper may be readily mailed. The testing is not time-dependent on ingestion of food as is PKU testing. The urgency is considerably less than for the PKU testing because immediate treatment is not as essential.

At present the procedure in most laboratories is as follows: The filter paper blood spot specimen is obtained from the newborn infant in the nursery at the same time and on the same filter paper as the PKU specimen. Alternatively, the test may be done on a liquid sample of cord blood. The specimen is tested for T_4 and results less than normal for the laboratory are consid-